

REMARKS

Independent claims 1 and 7 have been amended to clarify the invention and to better distinguish the claimed invention from the prior art. More particularly, independent claims 1 and 7 have been amended to specify that the inorganic filler component of the first resin is different in content amount than the inorganic filler component of the second resin. As pointed out in Applicant's specification adjusting the inorganic filler component content amount changes the thermal expansion coefficient. Adjusting content amount thus permits Applicant to minimize warpage and cracks, detachment and the like of solder bumps, etc. that otherwise results from excessive warpage. None of the applied art alone or in combination teach this feature nor resulting advantages as achieved by Applicant's claimed invention.

In the rejection, the Examiner acknowledges the primary reference Baba Mikio fails to explicitly teach the second resin filling a space between the semiconductor chip and the stiffener in contact with the first resin. Applicant agrees. Baba Mikio only discloses in Fig. 1 that a silver paste 7 partially fills a space between a semiconductor chip and a stiffener 5.

Moreover, there are other differences. Independent claims 1 and 7 require that the first resin and the second resin comprise an epoxy resin main component and an inorganic filler component wherein the epoxy resin main component is the same in the first resin and in the second resin, and that the inorganic filler component of the first resin is different in content amount than the inorganic filler component of the second resin. The Examiner acknowledges that the primary reference Baba Mikio also fails to teach this feature. It is submitted this feature also is not taught by any of the secondary references. Ryoichi merely teaches, in Figs 1 and 2 that a buffer resin 21, set as a silicone resin, fills a gap between a flip-chip element 2 and a ceramic substrate 1, and that a heat resistant resin 22 such as a modified polyimide resin, fills

a space between the flip-chip element 2 and a ceramic stiffener 1 in contact with the buffer resin 21.

The other secondary reference Kajiwara also fails to teach that the inorganic filler component of the first resin is different in content amount than the inorganic filler component of the second resin. Moreover, Kajiwara also fails to teach that the second resin is smaller in thermal expansion coefficient than the first resin. Kajiwara merely discloses in Figure 22 that an inorganic filler 7 contained in a resin 220 is different in particle size from an inorganic filler 221 contained in a resin 223.

Accordingly, it is submitted that no combination of Baba Mikio, Ryoichi and Kajiwara reasonably could be said to achieve or render obvious independent claim 1 or independent claim 7 or any of the claims which depend directly or indirectly thereon.

Having dealt with all the objections raised by the Examiner, the Application is believed to be in order for allowance. Early and favorable action is respectfully requested.

A Supplemental Information Disclosure Statement accompanies this Amendment.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account Number 08-1391.

Respectfully submitted,



Norman P. Soloway
Attorney for Applicant
Reg. No. 24,315

Customer No. 27,667

HAYES SOLOWAY P.C.
3450 E. SUNRISE DRIVE,
SUITE 140
TUCSON, AZ 85718
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

CERTIFICATE OF ELECTRONIC FILING

I hereby certify that this correspondence is being deposited with the United States Patent Office via the electronic filing procedure on June 23, 2009.

By: 

NPS:sb